1213.43347X00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Takaki NAKAMURA et al.

Serial No.: 10/736,630

Filed: December 17, 2003

For: DISTRIBUTED FILE SYSTEM

Group: 2100

Examiner: B. L. Johnson

RENEWED REQUEST FOR RECONSIDERATION

MS Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 22, 2006

Sir:

Applicants hereby renews its Petition to make this application **Special** previously submitted on July 14, 2005, in accordance with 37 CFR §1.102(d) and MPEP 708.02, VIII.

The July 14, 2005 Petition was denied by a Decision issued on June 22, 2006 in which the Petitions Examiner stated that the July 14, 2005 Petition failed to submit a statement that a pre-examination search was made, listing the field of search by class and subclass, publication, Chemical Abstracts, foreign patents, etc. and that the pre-examination search must be directed to the invention as claimed, and failed to submit a detailed discussion of the references, which

discussion points out, with the particularity required by 37 CFR 1.111(b) and (c), how the claimed subject matter is patentable over the references.

Regarding the discussion of how the claimed subject matter is patentable over the references, the Decision alleges that it "appears that Petitioner has incorporated limitations found in dependent claims 2 and 7 respectively, in the discussion of how independent claims 1 and 6 are patentable over the references". Petitioner hereby submits that the discussion as set forth in the July 14, 2005 Petition was appropriate and as such satisfied the rules since some of the subject matter of claim 2 was in fact incorporated in claim 1 and some of the subject matter of claim 7 was in fact incorporated in claim 6 by the July 14, 2005 Preliminary Amendment. A copy of said Preliminary Amendment is attached for reference and entry if it has not already been entered. Therefore, the July 14, 2005 Petition satisfied the rules in this regard and the objection to this portion of the Petition should be reconsidered and withdrawn.

The present Request for Reconsideration of Petition incorporates by reference the July 14, 2005 Petition and provides additional details regarding the pre-examination search and how the claimed subject matter is patentable over the references. The present invention is a new application filed in the United States Patent and Trademark Office on December 17, 2003 and as such has not received any examination by the Examiner.

(A) This Petition is accompanied by the fee set forth in 37 CFR §1.17(h).

The Commissioner is hereby authorized to charge any additional payment due, or to credit any overpayment, to Deposit Account No. 50-1417.

(B) All claims are directed to a single invention.

If the Office determines that all claims are not directed to a single invention, Applicant will make an election without traverse as a prerequisite to the grant of special status in conformity with established telephone restriction practice.

(C) A pre-examination search has been conducted.

The pre-examination search was updated to include Class 709 and Subclass 217 and was directed towards a storage system as claimed in the application. More particularly, the pre-examination search was conducted to find prior art for claims 1-16 of U.S. Application No. 10/736,630 as amended by the July 14, 2005 Preliminary Amendment (copy attached).

The claims as amended relate to, at a minimum, a distributed file system comprising: a storage device for holding files, multiple clients for carrying out file operations on a storage device, a server using tokens to control rights to file reading and writing operations by a client, and a network connecting clients, a storage device and a server, wherein: a server contains a token revoke request means for sending a token revoke request for demanding the return of a token granting rights to write on a file, to a client holding a token; and a token revoke request means sends a token revoke request containing information on a client

requesting a file, and information showing the contents of a token a client is requesting; a distributed file system, wherein said client comprising: a memory section for holding file data loaded from said storage device; and a data output means for sending a file held in said memory section and relating to said token, to said server of said client requesting said token when said token revoke request is received.

The search of the above features was conducted in the following areas:

Class	Subclass
707	8, 9, 10
709	201, 217, 229

(D) The following is a list of the references deemed most closely related to the subject matter encompassed by the claims:

U.S. Patent Number	Inventors
5,175,851	Johnson et al.
5,634,122	Loucks et al.
5,845,082	Murakami
6,385,701	Krein et al.
6,826,570	Eshel et al.

A copy of each of these references (as well as other references uncovered during the search) were enclosed with the July 14, 2005 IDS.

(E) It is submitted that the present invention is patentable over the references for the following reasons.

It is submitted that the cited references, whether taken individually or in combination with each other, fail to teach or suggest the invention as claimed. In

particular, the cited references, at a minimum, fail to teach or suggest as recited in the claims:

a first feature of the present invention as recited in independent claim 1, wherein said token revoke request means sends a token revoke request containing information on a client requesting said file, and information showing the contents of a token said client is requesting, and wherein said client comprises a memory section for holding file data loaded from said storage device and a data output means for sending a file held in said memory section and relating to said token, to said server of said client requesting said token when said token revoke request is received;

a second feature of the present invention as recited in independent claim 6, wherein said server sends information on the client requesting a token for said file, and information showing the contents of the token that said client is requesting, in the token revoke request sent to another client holding write operation rights to said file to request the return of the token for said write operation rights, and wherein a client that received said token revoke request, sends the file for said token held in said memory section, to the client requesting the token for said file;

a third feature of the present invention as recited in independent claim 11, including a data output means for sending a file for said token holding in said memory section to said client device requesting the token for said file when a request for returning a token for rights to write on said file is received from said server;

a fourth feature of the present invention as recited in independent claim 15, wherein a program makes a server function as a token revoke request means for sending the request for return of a token for rights to file writing, to a client holding rights to write on a file; and

a fifth feature of the present invention as recited in independent claim 16, wherein said program functions as a means for sending files for said token held in said storage section to a client device requesting said token for said file, when a request to revoke a token for rights to write on said file is sent from said server.

To the extent applicable to the present Petition, Applicants submit that although the distinguishing feature(s) may represent a substantial portion of the claimed invention, the claimed invention including said feature(s) and their inter-operation provides a novel storage system and system and method related to or implemented in or by said storage system not taught or suggested by any of the references of record.

Further, the cited references fail to teach or suggest the above noted features of the present invention when taken in combination with other limitations recited in the claims.

The references considered most closely related to the claimed invention are briefly discussed below:

U.S. Patent No. 5,175,851 (Johnson et al.) discloses a system and method in which client access to data at a server is synchronized to keep the data consistent by ensuring that each portion of the data accessible for modification at a node is not accessible for reading or modification by any other

node, while allowing portions of the data accessible only for reading to be accessible by any number of nodes. If a conflicting request arises from a different client the server must revoke data that has been previously distributed to a client. For a revokes_bytes request, all outstanding get_bytes are marked so that the bytes that are being requested to be revoked will be discarded when they do arrive at the client. To insure that read and write system calls on a file are performed in a serializable fashion throughout a distributed environment, each machine at which a read is being performed must acquire a read token and each machine at which a write is being performed must acquire a read/write token from the server for the file. When any machine has a read/write token, no machine is allowed to have a read token, although any number of machines may have a read token at the same time. The server coordinates the distribution of these tokens by revoking all read tokens whenever a write token is requested and revoking the write token whenever any read token is requested.

However, unlike the present invention, Johnson at a minimum fails to teach or suggest the above described first feature of the present invention as recited in independent claim 1, the above described second feature of the present invention as recited in independent claim 6, the above described third feature of the present invention as recited in independent claim 11, the above described fourth feature of the present invention as recited in independent claim 15, and the above described fifth feature of the present invention as recited in independent claim 16, and further fails to teach or suggest these features of the

present invention in combination with the other limitations recited in each of the independent claims.

U.S. Patent No. 5,634,122 (Loucks et al.) discloses a system and method for controlling access to shared resources in a distributed computer system. Access to shared resources is controlled by a local authorization token manager. Only computer processes holding authorization tokens for the requested operation may perform that operation. Each requested operation checks for the proper token. If the token is not held by the process, it is requested. The local token manager resolves token conflicts before granting tokens. A token manager of a distributed file system export protocol also is able to request authorization tokens from the local token manager. The export protocol token manager controls authorization tokens for that particular distributed file system protocol. Multiple different export protocols may request tokens from the local token manager. The shared resources may therefore be shared by multiple different export protocols without conflict. Local processes and processes requesting shared resource operations through an export protocol that does not itself manage tokens are granted tokens through the operation token request mechanism. This mechanism enables local processes to use shared resources without the performance penalty of having to request through a local distributed client process.

However, unlike the present invention, Loucks at a minimum fails to teach or suggest the above described first feature of the present invention as recited in independent claim 1, the above described second feature of the present

invention as recited in independent claim 6, the above described third feature of the present invention as recited in independent claim 11, the above described fourth feature of the present invention as recited in independent claim 15, and the above described fifth feature of the present invention as recited in independent claim 16, and further fails to teach or suggest these features of the present invention in combination with the other limitations recited in each of the independent claims.

U.S. Patent No. 5,845,082 (Murakami) discloses a node apparatus and a storage apparatus for use with a distributed system and a recovery method for a resource managing server for a distributed system, which are improved in that the load to a server upon recovery of the server is reduced and the memory area of the server can be utilized effectively. The node apparatus is used with a distributed system which includes a plurality of node apparatus each including one or both of a client and a resource managing server and a storage apparatus for storing checkpoints and wherein the plurality of node apparatus and the server are interconnected by way of a network. The node apparatus at least includes a client, and includes a checkpoint taking unit for allowing, in ordinary operation of the distributed system, the client provided in the node apparatus to take a checkpoint regarding a resource managed by the server, and a unit for storing the checkpoint taken by the checkpoint taking unit in the ordinary operation of the distributed system into the storage apparatus.

However, unlike the present invention, Murakami at a minimum fails to teach or suggest the above described first feature of the present invention as

recited in independent claim 1, the above described second feature of the present invention as recited in independent claim 6, the above described third feature of the present invention as recited in independent claim 11, the above described fourth feature of the present invention as recited in independent claim 15, and the above described fifth feature of the present invention as recited in independent claim 16, and further fails to teach or suggest these features of the present invention in combination with the other limitations recited in each of the independent claims.

U.S. Patent No. 6,385,701 (Krein et al.) discloses in a computing environment having clients with different semantics or protocols, a capability is provided that enables those clients to share the same data or files. A token management function is provided that allows clients that did not previously support token management to use the token management function to access the shared files. These capabilities are provided without requiring modifications to the client software.

However, unlike the present invention, Krein at a minimum fails to teach or suggest the above described first feature of the present invention as recited in independent claim 1, the above described second feature of the present invention as recited in independent claim 6, the above described third feature of the present invention as recited in independent claim 11, the above described fourth feature of the present invention as recited in independent claim 15, and the above described fifth feature of the present invention as recited in independent claim 16, and further fails to teach or suggest these features of the present

invention in combination with the other limitations recited in each of the independent claims.

U.S. Patent No. 6,826,570 (Eshel et al.) discloses concurrent access to data is managed through concurrency control techniques. Various types of techniques are employed to manage the access, including locking-based techniques and non-locking-based techniques. A dynamic switch from one type of concurrency control technique (e.g., a locking-based technique) to a different type of concurrency control technique (e.g., a non-locking-based technique) is enabled. This switching is based on access patterns and/or application requirements for each file. The switching allows enhanced performance for both coarse-grain sharing and fine-grain sharing of data.

However, unlike the present invention, Eshel at a minimum fails to teach or suggest the above described first feature of the present invention as recited in independent claim 1, the above described second feature of the present invention as recited in independent claim 6, the above described third feature of the present invention as recited in independent claim 11, the above described fourth feature of the present invention as recited in independent claim 15, and the above described fifth feature of the present invention as recited in independent claim 16, and further fails to teach or suggest these features of the present invention in combination with the other limitations recited in each of the independent claims.

Therefore, since the cited references at a minimum fail to teach or suggest the above described first feature of the present invention as recited in

independent claim 1, the above described second feature of the present invention as recited in independent claim 6, the above described third feature of the present invention as recited in independent claim 11, the above described fourth feature of the present invention as recited in independent claim 15, and the above described fifth feature of the present invention as recited in independent claim 16, and further fail to teach or suggest these features of the present invention in combination with the other limitations recited in each of the independent claims, it is submitted that all of the claims are patentable over the cited references whether said references are taken individually or in combination with each other.

F. Conclusion

Applicant has conducted what it believes to be a reasonable search, but makes no representation that "better" or more relevant prior art does not exist. The United States Patent and Trademark Office is urged to conduct its own complete search of the prior art, and to thoroughly examine this application in view of the prior art cited herein and any other prior art that the United States Patent and Trademark Office may locate in its own independent search. Further, while Applicant has identified in good faith certain portions of each of the references listed herein in order to provide the requisite detailed discussion of how the claimed subject matter is patentable over the references, the United States Patent and Trademark Office should not limit its review to the identified portions but rather, is urged to review and consider the entirety of each

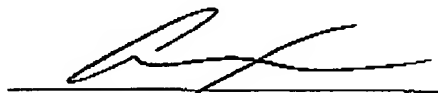
reference, and not to rely solely on the identified portions when examining this application.

In view of the foregoing, Applicant requests that this Petition to Make Special be granted and that the application undergo the accelerated examination procedure set forth in MPEP 708.02 VIII.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (Atty. Docket No. 1213.43347X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



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